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Yu-Chi Wen

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# **A Review of Using Weblogs for Teaching and Learning**

**by**

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## **Report**

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**A Review of Using Weblogs for Teaching and Learning**

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# **A Review of Using Weblogs for Teaching and Learning**

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The University of Texas at Austin, 2009

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Weblogs, one of the Web 2.0 applications, are popular among this Internet generation. Nevertheless, researchers have just begun to study their affordances for education. This report reviews the literature published in the past five years on using weblogs in teaching and learning and identifies most prominent characteristics of weblogs. It finds that weblogs have the potential to support teachers' pedagogical strategies in terms of knowledge construction, social development, new literacies, reflection, communication and collaboration, and home-school connection. This report also compares contemporary educational blogging services, Edublogs and 21Classes, to provide practitioners some insights about how to practice blogging in their classroom. This paper concludes with an emphasis on teachers' roles in technology integration and discusses future direction for research on academic use of weblogs.

## Table of Contents

|   |    |
|---|----|
| Chapter One: Introduction .....                             | 1  |
| Defining Web 2.0 .....                                      | 2  |
| What is a Weblog?.....                                      | 3  |
| Purpose of the Report .....                                 | 4  |
| Chapter Two: Literature Review .....                        | 6  |
| Literature Search Strategy .....                            | 6  |
| Overview of Current Weblog Literature .....                 | 6  |
| Evaluation of Weblog Literature .....                       | 14 |
| Characteristics of Blogs.....                               | 15 |
| The Pedagogy of Blog Use in Education .....                 | 21 |
| Chapter Three: Applications of Blogs in the Classroom ..... | 30 |
| Common Weblog Service Providers .....                       | 32 |
| Evaluation of Educational Blogging Software .....           | 39 |
| Implementing Blogs into Teaching .....                      | 46 |
| Chapter Four: Conclusion .....                              | 49 |
| Limitations and Future Research.....                        | 50 |
| References.....   | 52 |
| Vita.....   | 59 |

## **List of Tables**

|  |    |
|--|----|
| Table 1. Empirical studies on blog use in education. ....    | 8  |
| Table 2. Common weblog service providers. ....               | 38 |
| Table 3. A comparison of educational blogging software. .... | 42 |

## **List of Figures**

|   |    |
|---|----|
| Figure 1. Blogger homepage.....                             | 33 |
| Figure 2. LiveJournal homepage.....                         | 34 |
| Figure 3. Xanga homepage .....                              | 34 |
| Figure 4. Movable Type homepage .....                       | 35 |
| Figure 5. WordPress.org homepage.....                       | 36 |
| Figure 6. WordPress.com homepage .....                      | 37 |
| Figure 7. Edublogs homepage.....                            | 40 |
| Figure 8. 21Classes homepage.....                           | 41 |
| Figure 9. A sample page of 21Classes' two-layer portal..... | 41 |



## **Chapter One**

### **Introduction**

We live in a wired and globalized world in which communication and collaboration have become possible 24 hours a day seven days a week. One of the most popular methods of achieving this is through the Web. Today's Web is a new Web, known as Web 2.0. Tim O'Reilly (2005), one of the early thinkers about Web 2.0 issues, highlights the Web as a platform in which users can control their own data. The revolution of the Web has changed the notion of interactivity. Individuals not only find and read information from the Web but also create and share their own in real time. This new Web is participatory, cost-effective and scalable; most important of all, it harnesses collective intelligence.

Many Web 2.0 applications are similar in function to desktop applications, with people using their browsers for access rather than installing the software on computers. Others are social in nature and promote self-expression, such as weblogs, wikis, and social networking sites. According to eMarketer (2008), the United States has become a nation of bloggers in which 50% of the Internet users, approximately 94.1 million people, read weblogs and 12% write weblogs. Technorati (2008), as a distinguished search engine and an index of 112.8 million weblogs, reports that as of 2008, there were over 113 million blogs growing at the rate of 375,000 per day with 18 postings per second. Additionally, a 2006 Pew Internet & American Life Project indicated that 57% of

bloggers were under the age of 30, suggesting that this trend is especially popular with younger adults and adolescents (Lenhart & Fox, 2006).

As the blogosphere, a term that describes the blogging community, grows in size and influence, blogging has become an important method of communication in our daily life. It features self-expression, authentic readers, up-to-date information, and social networking. Its ease of use has also attracted educators' attention. With this new means of publishing and communication, the interaction between teachers and students can be enhanced. Since weblogs are a relatively new medium, however, literature about educational blogging is limited. This report reviews recently published relevant articles and identifies the potential values of weblogs for educational purposes.

## **DEFINING WEB 2.0**

Web 2.0 is an invented term, appearing as early as 1999, but is most associated with Tim O'Reilly according to the definition of Web 2.0 in Wikipedia ([http://en.wikipedia.org/wiki/Web\\_2.0](http://en.wikipedia.org/wiki/Web_2.0)). It refers to a second generation of Web development and design. The concept of Web 2.0 is most often defined by its contrast to Web 1.0. In the world of Web 1.0, a user had to purchase packaged software and had no control over the data. As an extension concept of the Web as a platform from Web 1.0, Web 2.0 innovation allows a user to run software-applications entirely through a browser and own the data. O'Reilly (2005) describes Web 2.0 with features of the Web as a platform, free and open source, collective intelligence, user-generated content, and interoperability.

Many Web 2.0 tools are based on the Asynchronous JavaScript and XML (Ajax) programming technique, which supports the creation of interactive Web applications. This open-source movement has also facilitated a participatory Web (Jenkins, Clinton, Purushotma, Robinson & Weigel, 2006) in which every Internet user can modify and distribute online content. One Web 2.0 phenomenon is *social software* (Rollett, Lux, Strohmaier, Dosinger & Tochtermann, 2007). Social software uses the Web as a collaborative medium that allows users to communicate, work together, and share and publish their ideas. A weblog serves as a representative example of Web 2.0 application.

#### **WHAT IS A WEBLOG?**

The genre of weblogs (also known as “blogs”) emerged around 1997 and was first coined by Jorn Barger in 1999 (Blood, 2000). At that time, weblogs were webpages where bloggers logged all the other web pages they found interesting. More recently, weblogs have evolved into online diaries, where people keep account of their personal lives. Blogs are “typically updated daily” and “blogs often reflect the personality of the author” (Catalino, 2005, p.22). A more technical definition, given by Winer (2003), states that a weblog is “a hierarchy of text, images, media objects and data, arranged chronologically, that can be viewed in an HTML browser” (¶3).

Since blogs serve as an easy tool for personal reflection, they have become popular with a constantly growing population, including educators. Educators realize that as society and the world of work change, the skills that students need to live and thrive in it also change. A report published by The Partnership for 21<sup>st</sup> Century Skills (2004)

identifies six key elements of 21<sup>st</sup>-century learning: “emphasize core subjects; emphasize learning skills; use 21<sup>st</sup>-century tools to develop learning skills; teach and learn in a 21<sup>st</sup>-century context; teach and learn 21<sup>st</sup>-century content, and use 21<sup>st</sup>-century assessments that measure 21<sup>st</sup>-century skills” (p.6). The North Central Regional Educational Laboratory (NCREL; 2003) has also listed four skills that future learners should be equipped with: digital-age literacy, inventive thinking, effective communication, and high productivity. It is predicted that the shift to Web 2.0 tools will have a profound effect on schools and learning, and cause a transformation in thinking. Therefore, the role of teachers will be to guide students in using the new tools to achieve 21<sup>st</sup>-century learning goals.

#### **PURPOSE OF THE REPORT**

This report provides a literature review of relevant articles on academic use of blogs including empirical studies, theoretical articles, and editorials. The questions guiding this review are:

1. What educational affordances and constraints do blogs have?
2. How do educators perceive blogs, and what have they done with the innovation of blogs in the last five years?
3. How can a teacher enhance students’ learning through the use of blogs?

This report first discusses the themes generated from the reviewed literature including characteristics and educational affordances of blogs and teachers’ pedagogy of implementing blogs. A critical examination of current literature of educational blogging will be presented at the end of Chapter 2. Chapter 3 introduces some common blog

hosting services and compares the potential of these platforms as a teaching and learning tool. This report concludes with some suggestions for practitioners who are interested in implementing blogs or who are currently blogging with their students. Limitations of the present articles and direction for future research are also discussed in the final chapter.

This literature review aims to provide both educational researchers and practitioners an insight on the potential and constraints of blogs in education. It is expected that readers will be able to transfer the knowledge gained from this report to evaluate the pros and cons of other Web 2.0 tools, such as social networking tools and mash-up applications, for teaching and learning.

## **Chapter Two**

### **Literature Review**

#### **LITERATURE SEARCH STRATEGY**

This report reviews the literature pertaining to teaching and learning with weblogs from 2005 to 2009 inclusive. This short time frame for article selection was made due to the rapid changes in the technology itself. The search of the literature was conducted using ERIC, Web of Science, IngentaConnect, Academic Search Complete, Computer Source, and PsycINFO databases. To identify relevant articles, the search term *weblog/blog* was combined with the terms *education*, *teaching and learning* and *Web 2.0*. The search was also limited to peer-reviewed journal articles, and it yielded 91 references. Additional articles were identified from the reference lists and from the prior knowledge of the author in this field. After the initial selection of articles, inclusion and exclusion criteria were applied to decide the final set of literature for review. These criteria focused on whether the study could provide enough information to answer the research questions stated above. After examining each abstract, 73 articles were found to meet these criteria and were used for this literature review.

#### **OVERVIEW OF CURRENT WEBLOG LITERATURE**

These 73 articles were categorized into empirical research and professional commentary. An article was deemed to be an empirical research article if the method, theoretical basis, and findings were articulated, while an article was determined to be a

professional commentary if it was a discussion or reflection on educational blogging. Based on this criterion, 17 articles were identified as empirical studies, as outlined in Table 1. This report begins with an examination of these empirical studies for their content and methodology. It continues by reviewing the professional commentaries.

Table 1. Empirical studies on blog use in education

| Reference                   | Research Focus  | Methodology  | Sample Size & Grade Level                                     | Blogging Tool Used                                   | General Findings   |
|-----------------------------|---|--------------|---|--|--|
| Armstrong & Retterer (2008) | To examine the use of blogs in a foreign language writing class.  | Qualitative  | 16 students from an intermediate college-level Spanish course | Own server   | Students reported feeling more confident in their ability to write in the target language due to the blogging activity.  |
| Baggetum & Wasson (2006)    | To identify the affordances of weblogging that facilitate Self-Regulated Learning (SRL).                              | Qualitative  | 19 blogs created by college students                          | N/A  | Blogging supports SRL by its features of reflection, motivation, ownership, customization and categorization.            |
| Black (2006)                | To explore the potential use of blogs in legal education.   | Quantitative | 58 first-year law students and 10 master students             | N/A  | Blogs as an educational tool in legal education promote deep learning and critical, analytical, and analogical thinking. |
| Dickey (2004)               | The impact of weblogs on student perceptions of isolation and alienation in a web-based distance-learning environment | Qualitative  | 111 pre-service teachers in a web-based course                | N/A  | The use of blogs helps to prevent feelings of isolation and alienation for distance learners.                            |
| Du & Wagner (2007)          | To examine if the continuous use of blogs affects student learning performance.                                       | Quantitative | 31 senior-level undergraduate students                        | <a href="http://www.blogger.com">www.blogger.com</a> | Blogs have the potential to become a knowledge construction tool and a social learning medium.                           |

(Continued)



**Table 1 (continued)**

| <b>Reference</b>          | <b>Research Focus</b>   | <b>Methodology</b> | <b>Sample Size &amp; Grade Level</b>                          | <b>Blogging Tool Used</b>  | <b>General Findings</b>   |
|---------------------------|---|--------------------|---|--|---|
| Ducate & Lomicka (2008)   | To examine the steps students progress through while reading and writing blogs and how self-expression is characterized in the blogosphere. | Qualitative        | 50 intermediate German and French learners in a college level | N/A  | Blogs feature ownership and creativity and allow students to experiment with language in a relaxed environment.                                   |
| Ellison & Wu (2008)       | To explore student perception of educational blogging   | Mixed              | 52 undergraduate upper-level students                         | <a href="http://www.blogger.com">www.blogger.com</a>   | Students need guidance in a blogging activity regarding reviewing diverse viewpoints.   |
| Glass & Spiegelman (2007) | To explore the use of blogs in enhancing the faculty-student interaction and college students' information literacy.                        | Qualitative        | 40-60(from 4 courses) college students                        | <a href="http://wordpress.com">wordpress.com</a>   | Blogs help to foster a sense of community and intensive interaction between the instructor and students.  |
| Huffaker (2006)           | To investigate the types of information that teen bloggers present to the Internet public.  | Quantitative       | Teenagers between the ages of 13 and 17                       | <ul style="list-style-type: none"> <li>• <a href="http://www.blogs.earchengine.com">http://www.blogs.earchengine.com</a></li> <li>• <a href="http://blo.gs">blo.gs</a></li> <li>• <a href="http://www.livejournal.com">http://www.livejournal.com</a></li> </ul> | Although blogs could be a good forum for identity construction, storytelling or social interaction, there are potential dangers of cyberstalking. |
| Luehmann & Tinelli (2008) | To explore in what way blogging supports practicing science teachers' learning.   | Qualitative        | 15 practicing secondary science teachers                      | N/A  | Blogging supports like-minded professionals to share and collaborate, and constitutes an important form of social interaction and networking.     |

*(Continued)*

**Table 1 (continued)**

| Reference                          | Research Focus   | Methodology  | Sample Size & Grade Level  | Blogging Tool Used  | General Findings   |
|------------------------------------|--|--------------|--|---|--|
| MacBridge & Luehmann (2008)        | The affordances and value of blogs for a high school math class                                | Qualitative  | A class of 11 <sup>th</sup> graders  | <a href="http://www.blogspot.com">www.blogspot.com</a><br>(www.blogger.com) | The use of blogs enhances student motivation toward learning.  |
| Mishne & Glance (2006)             | To study the overall volume of comments and analyze its relation with the weblog popularity.   | Quantitative | A collection of 645,000 comments posted to weblogs between July 11 and 30, 2005.                   | <a href="http://www.blogpulse.com">www.blogpulse.com</a>                    | Comments are about 30% of the volume of weblog posts. The usage of comments improves weblog retrieval and is beneficial for ranking weblog posts in a new way. |
| Schmitt, Matthias & Dayanim (2008) | To explore adolescent use of personal homepages in relation to mastery and identity formation. | Quantitative | Study 1: 500 children (8- to 17-year-olds)<br>Study 2: 48 personal homepages were randomly picked. | N/A   | Children use personal homepages to express and explore their forming identities.   |
| Shim & Guo (2009)                  | To examine college students' perception of blogs use in class.                                 | Quantitative | 143 undergraduate and graduate students with a business major                                      | N/A   | Students' level of study and experiences impacts their perception of the usage of blogs.   |

*(Continued)*

**Table 1 (continued)**

| <b>Reference</b>                           | <b>Research Focus</b>   | <b>Methodology</b> | <b>Sample Size &amp; Grade Level</b>                               | <b>Blogging Tool Used</b>                            | <b>General Findings</b>   |
|--|---|--------------------|--|--|---|
| Trammell, Tarkowski, Hofmohl & Sapp (2006) | To analyze Polish blogs in their content, technological features and the motivations of Polish bloggers.  | Quantitative       | 358 randomly selected blogs  | <a href="http://www.blog.pl">www.blog.pl</a>         | Self-expression is the primary motivation for Polish bloggers.  |
| Williams & Merten (2008)                   | To explore the content posted on adolescent online social networking profiles.  | Quantitative       | 100 profiles authored by adolescents between the ages of 16 and 18 | N/A  | Adolescents' online profiles contain a wealth of information on a wide range of social issues that contribute to the understanding of adolescent development. |
| Xie, Ke & Sharma (2008)                    | To investigate the interaction effects of peer feedback and blogging on college students' reflective thinking skills and their learning approaches. | Quantitative       | 27 first- and second-year undergraduate students                   | <a href="http://www.blogger.com">www.blogger.com</a> | Students' reflective thinking level increased significantly over time but peer feedback was found to be a negative effect.                                    |

The research topics of these empirical studies ranged from the use of blogs in a specific discipline, such as language learning (Armstrong & Retterer, 2008; Ducate & Lomicka, 2008), legal education (Black, 2006), mathematics (MacBridge & Luehmann, 2008) and teacher professional development (Luehmann & Tinelli, 2008), to the relation between blogging and student performance (Du & Wagner, 2007; Xie, Ke & Sharma, 2008), learning motivation (Baggetun & Wasson, 2006), social development (Dickey, 2004; Huffaker, 2006; Schmitt, Dayanim & Matthias, 2008; Williams & Merten, 2008) and student-faculty interaction (Glass & Spiegelman, 2007).

In the area of language learning, Armstrong and Retterer (2008) analyzed the blog content from an intermediate Spanish course and an online survey about students' blogging experience. They argued that although using a blog did not necessarily improve students' second language writing, it did enhance students' motivation and confidence level in writing. In another study, Ducate and Lomicka (2008) conducted action research in intermediate French and German university level language classes and collected data from blog posts, focus group interviews, and questionnaires. The results also indicated that blogs could allow students to experiment with the target language and express themselves in a relaxed environment and that when students read blog posts from native speakers, they could glimpse locals' lives, thereby opening a window into the target culture.

In other specific content areas, only a few articles discussing blogging were found. In one of these articles, MacBride and Luehmann (2008) examined a case of one high school mathematics class in order to explore both the teacher's and students'

perceptions of blogging practice, and they asserted that the participants generally considered blogs as a beneficial tool for teaching and learning. In an earlier study, Black (2006) investigated the potential use of blogs in legal education with both master's students and first year law students answering two surveys. Although the author concluded that blogging should be incorporated into teaching and learning law, this study was flawed by a loose structure of research design and analysis. It failed to explain the validity and reliability of the questionnaires as well as the positive relation between blogging and studying law. Luehmann and Tinelli (2008) conducted another qualitative study and argued that social networking technologies such as blogging could support secondary science teachers' professional learning. A grounded theory approach allowed them to discover different types (e.g., cognitive, affective, and social) of participation in teachers' blog posts and comments. Findings revealed that blogs as a public venue for professional work contributed greatly to the identity development of teachers in this study.

Regarding enhancing learners' motivation, performance, and social development, blogs have been affirmed as a valuable tool. In an investigation of a group of undergraduates on three performance assessment variables—weblog, coursework, and final exam— and content analysis of the participants' weekly posts, Du and Wagner's (2007) findings suggested that weblog performance could be a significant predictor of the students' learning outcome (i.e., exam scores). Xie et al. (2008) also conducted a correlation analysis to test whether participants' reflective thinking level in blogging would predict their learning approach and performances. They found that as time passed,

students who continued blogging improved their reflective thinking skills, and the higher a student's reflective thinking level was, the higher his course grade was.

Content analysis was the research method often used to explore the type of information that teen bloggers present to the Internet public. Personal information, family and social issues, and peer interaction were dominant themes in teenagers' blogs (Huffaker, 2006; Williams & Merten, 2008). While Huffaker (2006) points out the potential risk of these pieces of personal information being abused, Williams and Merten (2008) highlight the contribution of the online disclosure for understanding adolescent social development.

#### **EVALUATION OF WEBLOG LITERATURE**

In the set of reviewed empirical studies (Table 1), 11 out of 17 articles targeted higher education and only four articles targeted K-12 education (the remaining two articles analyzed general posts by the masses). Ten of 11 articles studied American bloggers and only one studied bloggers out of the United States. In a study on the motivation of Polish bloggers, Trammell, Tarkowski, Hofmohl, and Sapp (2006) found that their study could supplement the analysis of non-English blog content. As for the research methods, nine out of 17 were quantitative research, and all of these nine provided descriptive analysis but no experimental design. Of the remaining articles, seven were qualitative studies and one was mixed design.

It should be noted that during the last few years, more commentary or editorial types of articles than empirical studies on educational blogging were published. Since blogs are a relatively new medium, more time is needed before peer-reviewed research

articles are published. It also reflects that exploratory studies were mainly conducted in a higher education level. In addition, blog articles are usually practical rather than research-based, and most are published online only. More research-based studies are needed to further investigate the potential of blogs in different educational contexts. At the same time, researchers should invest equally in both quantitative and qualitative design because while quantitative studies could provide us an overview of blog use in education, qualitative research allows us to examine how each individual is using blogs to support their teaching and learning in detail.

In addition to empirical studies, the remaining 56 professional commentaries were included for review. After examining the whole body of literature, three themes emerged, and they serve as the organizational structure of this report as well as answers for the research questions mentioned earlier. The first theme is which general characteristics blogs have and which they can afford in educational contexts. A second theme revealed frequently in the literature is how blogging fits in with teachers' pedagogy and decision-making about technology integration. The third theme discussed in this review is which strategies an instructor should use in order to make learners' blogging experience successful; this information is included in *Chapter 3 Application of Weblogs in the Classroom*. Based on this review, an evaluation framework of blog affordance was constructed and presented.

## **CHARACTERISTICS OF BLOGS**

To examine the blog phenomenon, Kim (2008) employed the socio-technical systems (STS) theory developed by Trist and Bamforth (1951). The concept of STS

theory is that the success of an organization depends largely on the mutual interaction among four systems (i.e., a technical subsystem, a personnel subsystem, an external environment, and a work system. Therefore, the interaction between blogging tools (a technical subsystem), blog users (a personnel subsystem), the blogosphere (an external environment) and a blog (work system) was examined. Kim concluded that an open system, interactivity, and ease of use were three main reasons for the popularity of blogging.

Hendrick and Kleiner (2001) defined the open system as "a work system [that] has permeable boundaries exposed to the environment in which they exist" (p. 24). Blogs can be seen as an open system because they can embed other social software, for instance, video-based social software (e.g., <http://www.youtube.com>), photo-based social software (e.g., <http://flickr.com>), bookmark-based social software (e.g., <http://delicious.com>), and human network-based social software (e.g., <http://linkedin.com>), so users can easily access other technologies. In terms of interactivity, blogs allow users to communicate and collaborate by reading one another's posts, sharing resources and making comments. As a web publishing tool, simple interfaces and the ease of use have made blogging attractive to the public (Downes, 2004; Du & Wagner, 2007; Martindale & Wiley, 2004; Nackerud & Scaletta, 2008). The WYSIWYG (what you see is what you get) feature enables users to create online content in a very intuitive way. Users then can focus more on content rather than editing the HTML language. Other characteristics of blogs that were commonly discussed in the literature are explained in the following.



## **Hyperlinks**

Blogs are designed to be visited frequently, and the hyperlink allows both the writer and readers to reach wider and further resources on the Web (Blood, 2002; Ferdig & Trammell, 2004). A hyperlink also serves as a supplementary reference to enhance the blog author's viewpoint. A reader is directed to the author's perspective by clicking hyperlinks in the content. Another way that people use blogs is as a central port of information. Instead of typing the URL or searching Google, a blog owner creates a list of often-visited links, called a *blogroll*, to quickly launch their favorite web pages. Blogrolls also help to create a community of practice (Miles, 2006). For example, a language learning blog can list links to the target culture and language, to an individual's learning experience, or to virtual practice rooms. The hyperlink can support a user's effort to manage their own online resources as well as to connect to global users.

## **Anonymity**

The anonymity of blogs allows for identity exploration (Schmitt et al., 2008). People can register a blog account using a pseudonym and use this alias to post and comment. Blogs create a safe environment for people to freely express their opinions thus participation can be enhanced (MacBride & Luehmann, 2008). They can be used to supplement a traditional face-to-face environment in terms of encouraging a minor voice.

This anonymity, however, could also result in less contribution (Du & Wagner, 2007). Students might not feel obligated in an online discussion, or they might make irresponsible comments. Rather than the anonymity that blogs offer, Du and Wagner (2007) argue that blogs are featured for their non-anonymity because users publish the

logs with their authentic information. They claim that since a learner is aware of the visibility of blogs, they will be more responsible for their online activities.

### **RSS and Track Back**

RSS stands for RDF Site Summary (RSS 0.9 and 1.0), Rich Site Summary (RSS 0.91) or Really Simple Syndication (RSS 2.0), depending on the definition and period of evolution. Really Simple Syndication (RSS) is the technology that generates a feed of eXtensible Markup Language (XML) data summarizing the content of a site and allowing aggregator programs to syndicate and deliver the data directly to the user's desktop (Lee, Miller & Newnham, 2008). The use of RSS protocol makes weblogs distinctive from other computer-mediated communication tools such as the bulletin board system (BBS) (Shim & Guo, 2009). RSS feeds help to reduce retrieval time (Kim, 2008). Modern people are exposed to multitudinous and instantly changing information, and RSS allows them to subscribe to their favorite channel and receive the latest information without visiting that website. When the waiting time is largely shortened, an asynchronous communication resembles more a synchronous discussion. Martindale and Wiley (2005) claim that such an advance facilitates scholarship and teaching. Lee et al. (2008) insist that RSS is advantageous for higher education because it can afford personalized learning, social-networking, and authentic learning experiences.

Baggetun and Wasson (2006) further pointed out that the track back function of blogs allows the authors to know who is citing their work, thereby allowing a web of interconnected perspectives on a topic to be created. The plagiarism problem thus can be prevented (Oravec, 2003).

### **Ownership and Customization**

Blogs provide different levels of ownership in content delivery and creation (Ferdig & Trammell, 2004). Many blog hosting services support multiple authors and collaborative needs. For example, in a class blog, a teacher can decide his students' roles as site administrators, co-authors, or merely viewers. Ownership of a blog can also help to construct a decentralized system (Kim, 2008). Because of RSS technology, users no longer need to visit a hub site but to manage information and communicate with readers at their own sites. In addition, having a personal cyber space will encourage introverted individuals to participate more in online activities and be able to reduce the anxiety and worries caused by a centralized and authoritative online discussion. Researchers stated that ownership is important for student because it can motivate them to self-regulate their learning (Baggetun & Wasson, 2006; Kim, 2008; MacBride & Luehmann, 2008).

Another appealing feature of blogs is customization. A user can customize his blog by simply choosing from a variety of options, sometimes called *plug-in* applications e.g., selecting a theme, making an avatar, displaying a calendar and adding a blogroll, or applying self-designed cascading style sheet (CSS). With these customizable functions, a blog is more and more individualized.

### **Archives and Chronological Order**

Blogs are highlighted for their chronological archiving capability. Each blog entry is displayed in a reverse chronological manner and is tagged with keywords. It is quite easy for a blog user to find older information and document his learning process and journals (MacBride & Luehmann, 2008).

Knowing these features of blogs helps us to distinguish blogs from other computer-mediated communication (CMC) tools (e.g. email). For example, blogs and discussion forums are often compared. They both provide a space for asynchronous discussion, but blogs are less authorial, more interactive, and welcoming a variety of audiences (Black, 2006; Du & Wagner, 2007; Ellison & Wu, 2008; Ferdig & Trammell, 2004; Kim, 2008; Wang & Hsua, 2008). In terms of archives, blogs resemble e-portfolios. Users can filter information that interests them and store journals and other multimedia works in both e-portfolios and blogs. Researchers argue that by doing so, self-learning and reflective thinking process can be achieved (Ellison & Wu, 2008). While e-portfolios promote deep learning, blogging serves as an important role for supporting learning portfolios (Barrett, 2004).

Shim and Guo (2009) compared online information distribution methods (i.e., weblogs, emails, BBS, instant messages and personal homepages) and argued that weblogs are superior in terms of flexibility, distribution speed, information richness, availability, topic orientation and degree of interaction. If a personal homepage is taken as an example, it can be seen that it was rated relatively low in comparison with a weblog in flexibility and distribution speed because it takes more time and effort to update a web page than a weblog. Instant messaging (IM) is the fastest way to communicate, but it lacks the richness of information and availability of a weblog. This is because IM is often blocked in a networked computer environment due to security considerations.

In summary, all of these features of blogs highlight the many attributes that make them beneficial for use in educational contexts. The next section will continue to discuss the claims from the literature regarding weblogs as a pedagogical instrument.

## **THE PEDAGOGY OF BLOG USE IN EDUCATION**

According to Rogers (2003), a successful diffusion of innovation happens when the new concept fits into the existing knowledge system. Therefore, teachers' decision of adopting a new technology mainly relies on the compatibility between the affordance of technologies and instructors' pedagogical beliefs. Based on the literature review, the author summarized several educational values that blogs can offer to support teachers' pedagogical techniques as follows.

### **Blogging is a knowledge construction process**

Early constructivists such as Bruner and Piaget insist that learning becomes meaningful when it is learner-centered and can be achieved through a continuous process of acquiring, generating, analyzing, manipulating and structuring information. Du and Wagner (2007) assert that blogging is a constructivist model due to its support of student-centered learning. Students are encouraged to actively construct meaning and organize information at their own pace during blogging. Through blogging, students acquire an authentic publication experience and feedback from others, which can motivate one's self-learning (Ferdig & Trammell, 2004). Blogs can be seen as a knowledge management system, and students become subject-matter experts by continuously seeking, analyzing and organizing information of a certain topic (Doctorow et al., 2002; Ferdig & Trammell, 2004). They also serve as a resource center or showcase of projects for all weblogs

entries are stored, retrievable, searchable, and contextualized (Baggetun & Wasson, 2006; Oravec, 2003; Ray, 2006; Wang & Husa, 2008). Blogs allow one to track his own learning and support instructors to conduct formative assessment on students' performance over time.

One extension of constructivism is collaborative/social constructivism. Social constructivists believe that knowledge is generated through social intercourse and cognitive conflict (Ferdig & Trammell, 2004; Wang & Hsua, 2008). Many teens use blogs to meet new people and maintain existing friendships online (Lenhart & Madden, 2005). Furthermore, through blogs, learners can access different perspectives that stimulate them to accommodate and assimilate new knowledge. Many features of blogs facilitate students' collaboration and communication, such as comments, blogroll, and track back. Students are able to share their same interests and build a social network in and out of class.

### **Blogging facilitates social development**

Identity exploration is critical in teenage development (Huffaker, 2006). In their study of preadolescent and adolescent use of personal homepages, Schmitt et al. (2008) argue that children who created personal homepages and used them to express who they are had strong feelings of mastery. Read (2006) also argues that blogging can fulfill humans' relatedness needs as well as their growth needs. According to Alderfer's (1972) modified theory of Maslow's hierarchy of needs, humans have existence needs, relatedness needs, and growth needs. Existence needs are satisfied when people have the material substances necessary to meet their physiological and safety needs; relatedness

needs are satisfied when people have relationships in which they can share their thoughts and feelings; growth needs are satisfied when people are able to use their current capabilities as well as develop new talents. Read found that young adolescents are able to meet these needs through blogging when establishing connection with other bloggers, maintaining their blogs, and developing their writing skills.

In addition, feelings of frustration and isolation, which are sometimes caused by a distant learning environment, can be reduced by supporting individual voices in blogging (Dickey, 2004). Huffaker (2006) emphasizes that the feature of chronological-order format that blogs own enables teenagers to construct and reflect on their identities as time passes. Such self-disclosure sites have increased the access to a vast amount of youths' personal self-expressions. Besides its practical benefits, blogging is a relatively safe method to explore how teenagers communicate with each other, which will potentially facilitate better communication between authority figures and adolescents and enable adults to be more aware of adolescents' emotional health and well being. Educators and parents could view blogging as an invaluable tool to understand teenagers better: their hopes, challenges, opinions, communication styles, activities, and social networks. Within parameters guided by parents, schools, and other invested authorities, blogging can be a positive outlet for peer interaction and appropriate self-disclosure (Williams & Merten, 2008).

### **Blogging cultivates new literacies**

Although the definition of new literacies is regularly changing due to innovation, according to Leu, Kinzer, Coiro and Cammack (2004), it can be defined as the skills,

strategies, and dispositions of using and adapting to the rapidly emerging information and communication technologies (ICTs). To stand firm in a digital age, students need to acquire new literacies that will give them the ability to build a professional network and collaborate with global users. Leu et al. (2004) emphasize that new literacies are multiple in nature in terms of constructing meanings in multimedia forms, using multiple communication tools, and encountering information in various social contexts such as schools, home or the workplace. A blog can be seen as a favorable tool for students to cultivate their new literacies because it is not only a rich multimedia environment where they can publish digital photos, audio, and video via this medium but also a social and cultural context for them to exchange information (Miles, 2006).

It is also essential to note that new literacies almost always build on, rather than replace, foundational literacies such as phonemic awareness, word recognition, and decoding knowledge (Leu et al., 2004). School writing as one of the key subjects of foundational literacy training, however, is often seen as daunting and as not engaging to students. Read (2006) argues that blogs can make school writing more self-directed. Blogs can provide an authentic form of writing and allow students to be involved in decision-making about what and how they write. Moreover, if the blog has external readers other than the teacher, students are more aware of the clarity and content of their writing (MacBride & Luehmann, 2008).

Generally, the "read/write" functionality of blogging, wherein readers are encouraged to comment on blog posts, and thus become part of an evolving public discussion, is a primary reason for blogging's popularity (Baggetun & Wasson, 2006;



Ellison & Wu, 2008). Ellison and Wu (2008) found that students enjoyed the novelty and convenience of the medium, the less formal writing voice it encourages, and the interactivity inherent in the assignments. Wang and Hsua (2008) further pointed out that the written form used in blogs benefits students because they have more time to reflect on and articulate their ideas. Another phenomenon is that blogs have led to resurgence in journaling through their accessibility, audience, and immediacy (Kajder, Bull & Van Noy, 2004). Miles (2006) commented that both teachers and learners should value the networked, contemporary writing practice, and communicative space that blogs offer.

In addition to facilitating daily writing with blogging, teachers should decide the goal for writing practice and create an appropriate assessment plan because while students enjoy informal blog writing, without defined goals, students might miss the opportunity to learn points such as grammar and Internet etiquette. Other essential issues such as copyright, intellectual property, and Internet ethics should also be taught through the blogging process (Miles, 2006).

### **Blogging enhances collaboration and communication**

MacBride and Luehmann (2008) in their case study noted that blogs help to create a learning environment of collaboration and equal participation. First of all, students are able to learn content from one another and; through commenting and chatting, each student can modify his or her own knowledge. Further, the co-author function supports student collaboration. For instance, students can collaboratively design a classroom newsletter by editing one another's work. Second, the anonymity feature makes students more willing to contribute to the discussion than they do in a traditional classroom.

Diverse perspectives are thus presented (Ferdig & Trammell, 2004; MacBride & Luehmann, 2008; Wang & Hsua, 2008). In particular, working with peers instead of someone who is presumably "superior," such as mentors or teachers, can help reflection (Boud, 1999). Third, the online platform allows learners to reach audiences beyond the classroom (Ferdig & Trammell, 2004; MacBride & Luehmann, 2008; Wang & Hsua, 2008). For example, a teacher can create a blog project that involves parents, communities of professions, or even global readers. A class can also write to a celebrity or a book author to accomplish an authentic task. With the awareness of cultural differences, intercultural communication can also be achieved via blogs (Kim, 2008). Therefore, blogs can open a window for 21<sup>st</sup> century learners to the global village.

### **Blogging is reflective learning**

Reflection is deemed to be an important prerequisite for deep and meaningful learning (Moon, 1999). Moon believes that reflection helps to move learning from surface to deep stages. If students are constantly engaged in journaling/blogging activities, their reflective thinking level will increase over time (Xie et al., 2008). Journal writing and peer feedback have been identified as effective ways to promote students' reflective thinking skills. Reading other students' blogs allows students to gain more understanding than writing their own entries or reading comments from others about one's entry (Ellison & Wu, 2008).

Weblogs, as a popular web-publishing and online journaling tool, allow bloggers to easily access different points of views. Blogging can potentially provide students with a window into peers' perspectives, a doorway to global audiences, and a mirror through

which to reflect on their own thinking and writing (Ellison & Wu, 2008). While schools usually have tight schedules and no time for sharing and reflection, blogs could be a solution to overcome the time and space restraints. Students are able to conduct self-assessment and reinforce individual accountability through an open learning environment rather than one-way feedback from the teacher (Du & Wagner, 2007). Downes (2004) claims that blogging offers students a chance to a) reflect on what they are writing and thinking as they write and think, b) carry on writing about a topic over a sustained period of time, and c) engage readers and audience in a sustained conversation that then leads to further writing and thinking.

### **Blogging builds home-school connection**

The RSS feature of blogs makes teachers able to subscribe to individual updates and give in-time feedback. Not only do the students benefit from weblogging activities, the on-going learning assessment facilitates an adjustment of the teaching pace and content (Du & Wagner, 2007).

Blogs can replace the traditional class web pages and enrich the communication channel between the teacher and parents, thus forming a “transparent classroom environment” (Berson & Berson, 2006, p. 124; Downes, 2004). Harper (2005) also claims that blogging can potentially aid instructors by creating a unique avenue for open disclosure without the instructor's direct presence. Blogging generates reciprocal self-disclosure between the instructor and student, and more introverted students who typically do not reveal much in the classroom may expose a great deal online (Harper, 2005). A blog might be the most cost-effective and timely way to strengthen the home-

school connection. When used by parents, it also ensures that they receive up-to-the minute information from the school or district (Catalino, 2005).

In conclusion, literature recommended weblogs for classroom use because they can enhance knowledge construction, social development, new literacies, collaboration and communication, reflection, and home-school connection. However, it should be noted that such arguments have a limitation in generalizability. Many studies only analyzed data from one academic semester or year (e.g., Black, 2006; Du & Wagner, 2007; Xie et al., 2008). Since learning is a continuous process, claiming blogging can positively influence students' learning performance in such a short timeframe is bold. In addition, it appears that many studies did not have a random sampling and the samples were too small (e.g., Black, 2006; Du & Wagner, 2007; Xie et al., 2008). Moreover, there was no controlled experimental research reviewed in this report, so some confounding variables might not have been considered. For instance, although Xie et al. (2008) asserted that blogging increased learners' reflective thinking level over time, it is unknown whether class discussion, teachers' guidance, or individual training contributed to such improvement.

Finally, it is quite complicated to generalize the argument when considering teacher's Technological Pedagogical Content Knowledge (TPCK) (i.e., the knowledge that affects a teacher's technology integration in teaching; Mishra & Koehler, 2006), the purpose of classroom blogging, administrative support, and characteristics of learners. Therefore, practitioners and future researchers should consider learning contexts when

deciding whether blogs are a beneficial medium, and more evidence about educational values of blogs is needed.

In Chapter 3, this report will continue with some suggestions for practitioners about how to choose a blog platform, how to prepare students for blogging, and what issues they should anticipate.

## **Chapter Three**

### **Applications of Blogs in the Classroom**

From the prior chapter, teacher readers can learn about the educational values of blogs and can carefully consider their purpose of blogging. This chapter will present more practical ideas about planning for blogging in the classroom. It should be noted that most literature about educational blogging mainly focuses on a face-to-face learning environment. As such, distant learning environments are not discussed in this report. Distinguishing the use of blogs in different contexts might be a future research topic.

To begin with, an instructor who is interested in implementing a blog in the classroom needs to decide about which content the learners should blog. For topics, blogs can be defined as issue-oriented or diary-style (Bloch, 2007; Nackerud & Scaletta, 2008). An issue-oriented blog has a repeated theme that a reader can easily notice after reading a few posts such as politics, fashion, or technology; a diary-style blog, on the other hand, usually keeps an account of one's daily life, and it sometimes could be trivial and emotional.

Next, the instructor should consider the authorship. There are three types of blogs: the instructor blog, managed by the class teacher; the learner blog, managed by an individual; and the class or community blog, managed by both a teacher and students (Armstrong & Retterer, 2008; Bloch, 2007; de Almeida, 2008). Each type of blog serves a different function. For example, Armstrong and Retterer (2008) employed both a community blog and a learner blog in their second language writing class. Students could

not only practice formal writing in their personal blog but also participate in the group discussion and collaborative writing activity in the community blog. Teachers, in order to customize a blog for their classes should consider the subject goal (e.g., to practice a language, to supplement information, or to share and collaborate) and characteristics of the learners (e.g., younger students might not be capable of managing their own blogs).

With a clear goal for blogging, the next step is to select a blogging tool. Weblogs' software is commonly divided into two types: *hosted services* and *self-hosted services*. A hosted weblog service provides users with a free account and space to upload their posts, although the charge for upgrading the license may apply. Such free software makes blogging very easy, and users can quickly adopt it as a tool for creating daily journals and a personal website. Free blogging platforms such as Blogger (<http://www.blogger.com/>), LiveJournal (<http://www.livejournal.com/>), Xanga (<http://www.xanga.com/>) and MySpace (<http://www.myspace.com/>) are all very popular among teenagers. As for the self-hosted ones, Movable Type (<http://www.movabletype.com/>) and WordPress (<http://wordpress.org/>) are well known platforms. These self-hosted packages require one to perform installation and maintenance tasks but allow for better customization. See Table 2 for a description of various software.

In the literature that this report reviewed, many used Blogger as a platform because it connects with Google and has a very intuitive interface. There were also a few educators adopting platforms with social networking capabilities such as Xanga, LiveJournal or MySpace as their students were already familiar with the interface and were able to connect with the existing community. Moreover, some schools had

developed institutionally hosted blog software (e.g., UThink, the blogging system at the University of Minnesota) to support teachers and students (Nackerud & Scaletta, 2008). As Nackerud and Scaletta (2008) state, by self-hosting blogs, the school administration was able to archive the important content and retain historical information for later. Nevertheless, Martindale and Wiley (2005) argue that the issue of ownership should be considered; for example, if students graduate, they may not be able to access their previous blogs again.

## **COMMON WEBLOG SERVICE PROVIDERS**

### **Blogger**

Blogger is a blog publishing system. It was created by Pyra Labs in 1999 and bought by Google in 2003. The service itself is located at [www.blogger.com](http://www.blogger.com) but individual websites are hosted at sub-domains of [blogspot.com](http://blogspot.com). It features a simple-to-use interface that supports over 40 languages. Blogger was ranked 16 on the list of top 50 domains in terms of number of unique visitors in 2007.





Figure 1. Blogger homepage. (<http://www.blogger.com/>)

## LiveJournal

LiveJournal.com, a blogging platform and online community built around personal journals, was started by Brad Fitzpatrick in 1999. LiveJournal (often abbreviated LJ) is featured for its variety of user-centered communities and some social networking features, for example, updates of friends and instant messaging services.

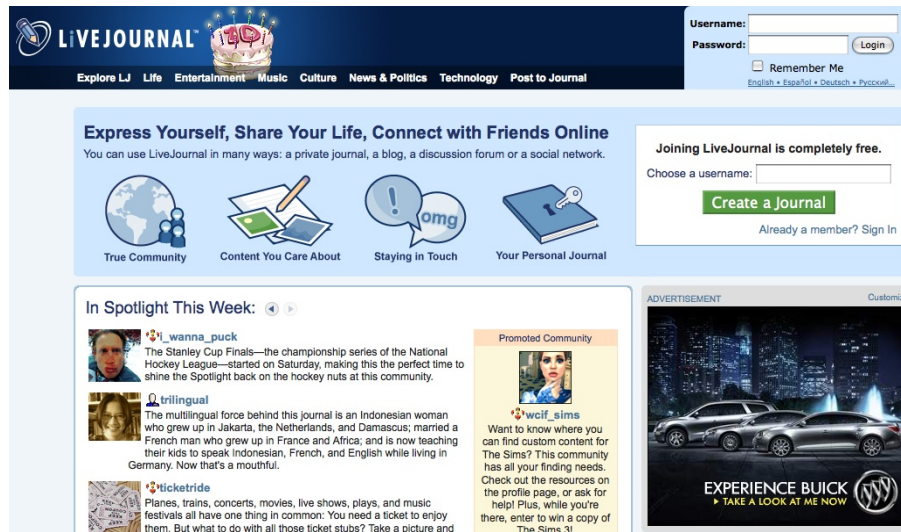


Figure 2. LiveJournal homepage. (<http://www.livejournal.com/>)

## Xanga

Xanga, operated by Xanga.com, Inc. in New York City, is a website that hosts weblogs, photoblogs, and social networking profiles. It is a community of online diaries and journals.

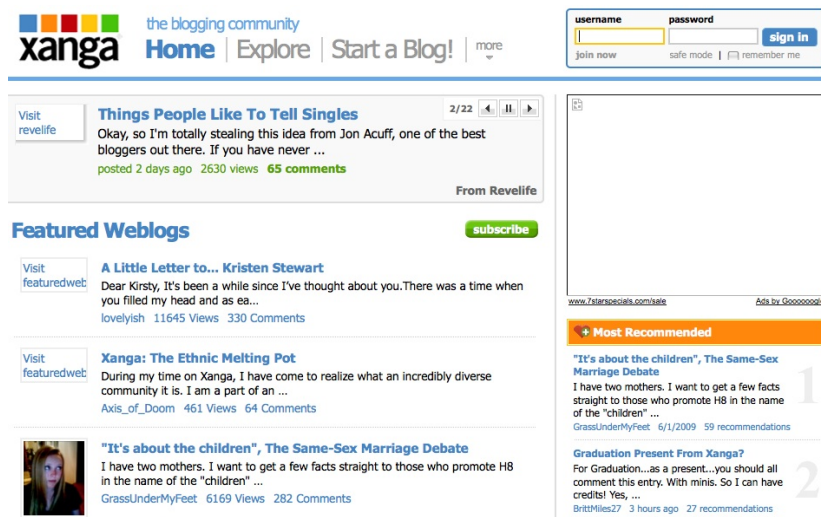


Figure 3. Xanga homepage. (<http://www.xanga.com/>)

## Movable Type

Movable Type is a weblog publishing system developed by the company Six Apart in 2001 and relicensed as free software under the GNU General Public License in 2007. Movable Type is a system which needs to be installed on a user's own web server. It claims to provide an all-in-one solution, i.e., creating blogs, developing websites, managing content, and building social networks. Its scalability is favored by businesses, enterprise, and high-traffic bloggers.

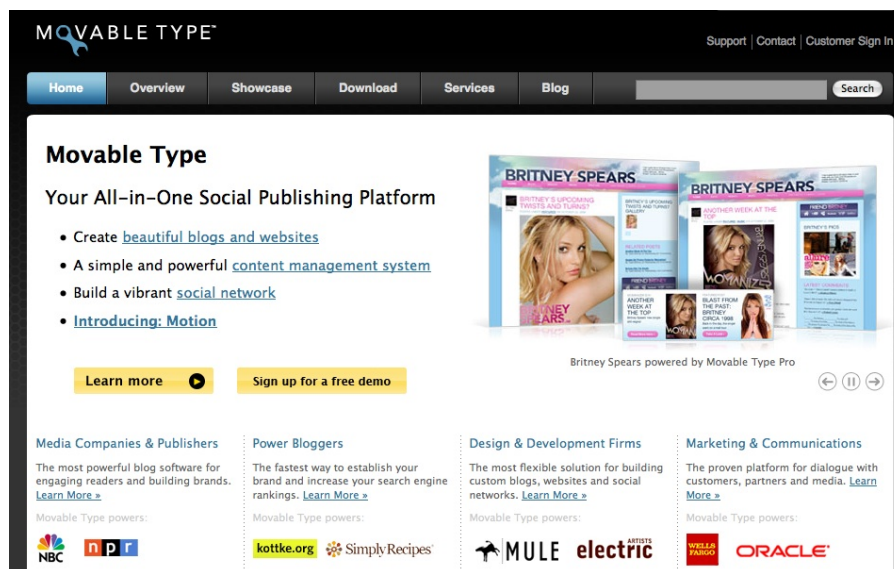


Figure 4. Movable Type homepage. (<http://movabletype.com/>)

## WordPress

WordPress is a free and open source blog publishing application, which first appeared in 2003. WordPress has a template system, which includes widgets that can be rearranged without editing PHP or HTML code, as well as themes that can be installed and switched between. The PHP and HTML code in themes can also be edited for more

advanced customizations. Its rich plug-in architecture allows users and developers to extend the functionality of a website.

Notice that there is a difference between WordPress.com and WordPress.org. WordPress.com is a hosted blog service, whereas WordPress.org is self-hosted software. WordPress.com lets a user get started with a new and free blog in seconds. A user does not need to download software, pay for hosting, or manage a web server. WordPress.org, on the other hand, provides more flexibility, but software must be installed on one's server or with a third party provider.

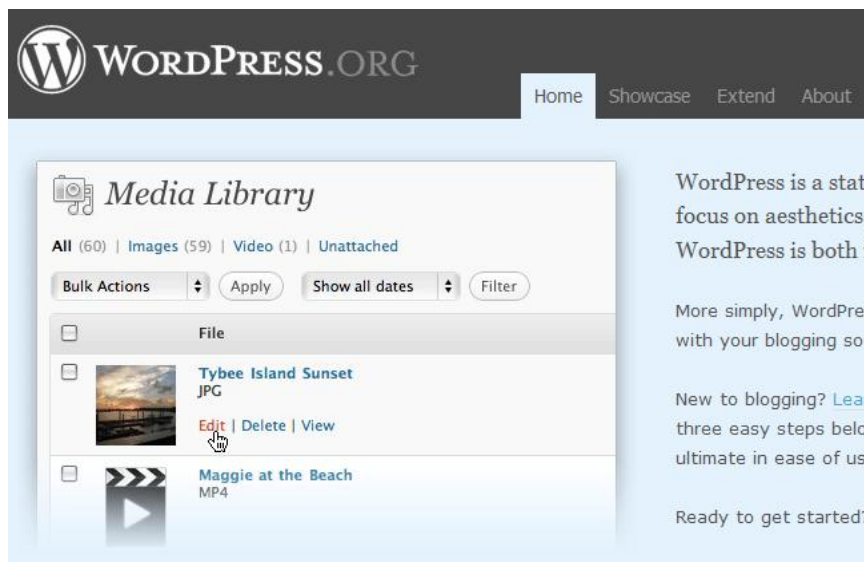


Figure 5. WordPress.org homepage. (<http://wordpress.org/>)

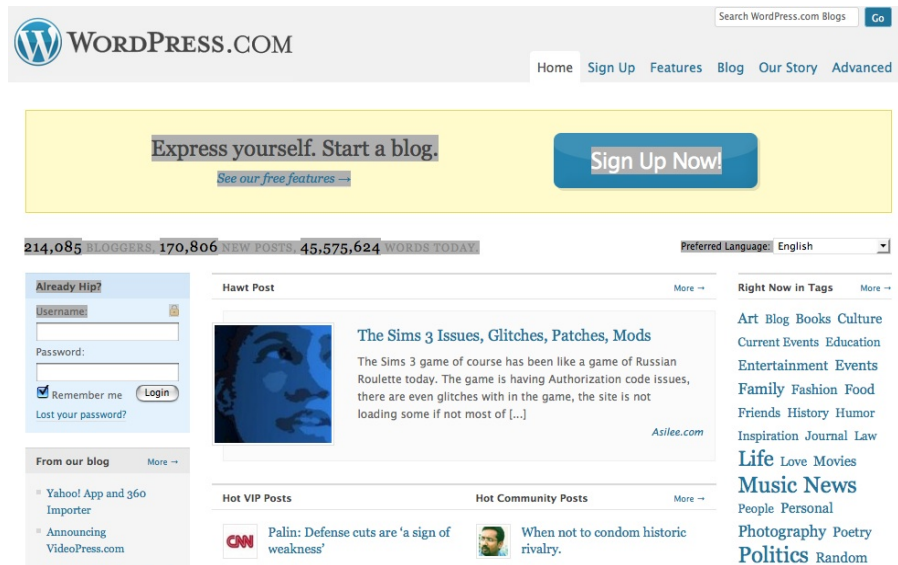


Figure 6. WordPress.com homepage. (<http://wordpress.com/>)

Table 2. Common weblog service providers.

| Features   | <b>Blogger</b><br>(www.blogger.com) | <b>LiveJournal</b><br>(www.livejournal.com) | <b>Xanga</b><br>(www.xanga.com) | <b>MovableType</b><br>(www.movabletype.com) | <b>WordPress</b><br>(www.wordpress.org) |
|--|-------------------------------------|---|---------------------------------|---|---|
| Free and Open Source   | No                                  | No  | No                              | Yes   | Yes                                     |
| Cost   | Free                                | Free  | Free                            | Free  | Free                                    |
| Custom URL<br>(not including domain registration fee)  | Free                                | No  | No                              | Free  | Depends on the Web hosting service      |
| Number of Posts  | Unlimited                           | Unlimited                                   | Unlimited                       | Unlimited                                   |   |
| Storage for Photos   | 1 GB free                           | 1 GB free<br>2GB(\$24/year)                 | 1 GB<br>10 GB(\$25/year)        | 5000 files                                  |   |
| Customize Design/CSS   | Yes                                 | Yes   | Yes                             | Yes   | Yes                                     |
| Professional Support   | Help Center,<br>Forum               | Help Center                                 | Help Center                     | Help Center,<br>Forum                       | Help Center,<br>Forum                   |
| Social Networking Feature (e.g., personal profile, group of interest, instant messaging service) | No                                  | Yes   | Yes                             | No  | No                                      |
| Plug-in System   | No                                  | No  | No                              | Yes   | Yes                                     |

## **EVALUATION OF EDUCATIONAL BLOGGING SOFTWARE**

While many blogging platforms are available, only a few of them are specifically designed for educational purposes. This article introduces two emerging educational blogging services- Edublogs (<http://edublogs.org/>) and 21Classes (<http://www.21classes.com/>). Both platforms will be compared with Blogger based on the evaluation framework discussed earlier to see which one could be the most appropriate blogging tool for educators. Since all individuals have their own preference, the result presented here will not serve as a norm but as an example about how to systematically evaluate some candidate blogging tools.

### **Edublogs**

Edublogs was developed by Australian educational technologists. It aims to make WordPress blogs available and free of charge to educational professionals all over the world. There are currently 320,753 blogs powered by Edublogs (June, 2009), and it provides users with robust support through video tutorials, forums, and frequently asked questions. In addition, the forum allows educators to discuss both technical and pedagogical issues thus forming a learning community.

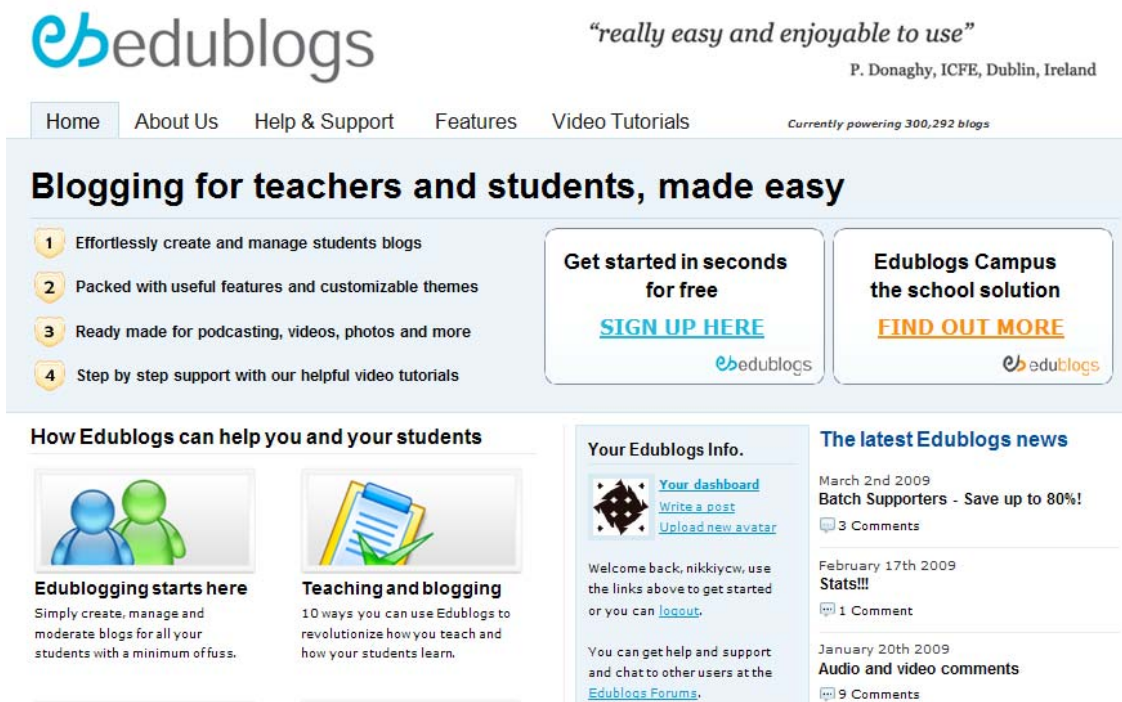


Figure 7. Edublogs homepage. (<http://edublogs.org/>)

## 21Classes

Founded in 2004, 21Classes is a product of 21Publish Inc. It features multi-user blogging and has a two-layer system containing both the class/teacher homepage and each individual student's blog (see Figure 8). Unlike other blogging tools, 21Classes is specifically designed for teachers as it gives teachers complete control over content and student blog entries as well as security settings for their students' accounts. It claims that a multi-user experience can facilitate collaboration and communication between students and the teacher.



# Get your students blogging. [Sign up for free!](#)

Create a virtual classroom and BlogPortal.

Instant use, hosted, free.

[or click here to learn more.](#)

## Great for teachers



- Host and manage blogs for your students
- Use a Class Homepage to communicate with students
- Reviewing capabilities of entries
- Advanced privacy [see all features](#)

## Ideal for students



- Fully featured blogs to upload text, photos, or insert videos
- Fun learning experience
- Customizable visibility and comment settings
- No e-mail address required [see all features](#)

Figure 8. 21Classes homepage. (<http://www.21classes.com/>)

**Mr. Messick's 4th Grade Weblog** + = % ? !

**Welcome to the Georgetown Elementary 4th Grade Blogging Site!**

Welcome to blogging...4th grade style!

**Recent Posts**

- 8:14 AM | 7/19/09 | by: [Matt](#)  
mattm20  
Hey.  
Hey everybody. How is all your summers going? Mine has been pretty good so far. Can you believe were almost halfway through the summer? It went by so fast. → [more](#)
- 10:57 PM | 7/16/09 | by: [MasterUtzM1](#)  
MasterUtzM1  
Awwwww  
heyim bored..... what you ALL been up 2? → [more](#)
- 12:01 AM | 4/16/09 | by: [Mrmessick](#)  
Mrmessick  
Yes, scientists have discovered life on the 4th grade blog!!!!

**News & Assignments**

[My Summer Plans](#)  
[Reflection of This Years Math Class: Fractions, decimals, mental math, patterns, all partial multi...](#)

**Registered users**

Username   
Password

**Click here to sign up**

**Navigation**

[News & Assignments](#)  
[Support](#)  
[Home](#)

Figure 9. A sample page of 21Classes' two-layer portal. The top area is a central port managed by the teacher and the bottom area is a list of recent posts by students in their individual blog.

Table 3 compares Edublogs, 21Classes, and Blogger in their general, blogging, and extended features. The information obtained from each provider's website was valid as of June 15, 2009.

Table 3. A comparison of educational blogging software – Blogger, Edublogs, and 21Classes.

|                           |                     | <b>Blogger</b><br>( <a href="http://www.blogger.com/">http://www.blogger.com/</a> ) | <b>Edublogs</b><br>( <a href="http://edublogs.org/">http://edublogs.org/</a> ) | <b>21Classes</b><br>( <a href="http://www.21classes.com/">http://www.21classes.com/</a> ) |
|---------------------------|---------------------|---|--|---|
| <b>General Features</b>   |                     |   |  |   |
| Cost                      |                     | Free  | Free   | Free  |
| Storage                   |                     | 1 GB  | 20 MB  | 1 MB  |
| Multi-User Support        |                     | √   | √  | √   |
| Troubleshooting & Support | Help Center         | √   | √  | √   |
|                           | Forum               |   | √  |   |
|                           | Tutorial            | √   | √  |   |
| Search Engine             |                     | √   | √  | √   |
| Ads Displayed             |                     |   | √  |   |
| <b>Blogging Features</b>  |                     |   |  |   |
| Post                      | Spell Checker       | √   | √  |   |
|                           | WYSWYG Editor       | √   | √  | √   |
|                           | Preview             | √   | √  |   |
|                           | File Upload         |   | √  | √   |
|                           | Emotion Images      |   |  | √   |
|                           | Tags                | √   | √  | *   |
|                           | Categorization      |   | √  | √   |
|                           | Multi-paged Post    |   | √  | √   |
|                           | RSS                 | √   | √  | √   |
|                           | Trackback           | √   | √  |   |
|                           | Archiving           | √   | √  | √   |
|                           | Protected Entry     | √   | √  | √   |
| Comment                   | Layout              | Flat  | Threaded   | Flat  |
|                           | Feeds for Subscribe | √   | *  |   |
|                           | Email Notification  | √   | √  | √   |

|                          |                |   |   |   |
|--------------------------|----------------|---|---|---|
|                          | Moderation     | √ | √ | √ |
|                          | User Avatar    | √ | √ |   |
| Customization            | Theme          | √ | √ | √ |
|                          | Plug-in System |   | √ |   |
| Multimedia               | Image          | √ | √ | √ |
|                          | Audio          | √ | √ |   |
|                          | Video          | √ | √ |   |
| Blogroll                 |                | √ | √ | √ |
| <b>Extended Features</b> |                |   |   |   |
| Poll/Survey              |                | √ |   |   |
| Audio/Video Comment      |                |   | * |   |
| Integrated Statistics    |                |   | * | √ |

\*Available in upgraded option only.

Although Table 3 provides an idea of general characteristics of each educational blogging tool, it is still unclear which supports teachers' pedagogical technique better. Based on the discussion in Chapter 2, blogs have these educational affordances: knowledge construction, social development, reflection, communication and collaboration, new literacies, and school-home connection. As an example, three educational blogging services will be compared in these aspects and a conclusion about the ideal educational blogging tool will be offered.

### **Knowledge construction**

All three educational blogging tools can support learners' knowledge construction with archiving, comments, and track back and RSS features, in terms of exposure to a new concept and varied expertise, tracking learning process, and exchanging information with others. For example, 21Classes lists every student's recent post in a central site so each can easily view others' ideas. Edublogs allows a user to archive information in a *post* and a *page*. The difference between a page and a post is that a post is usually displayed in reverse chronological order and contains time stamps, tags and category data,

while a page is often used to display independent and static messages and is not frequently updated. A user can interchangeably utilize these two properties to expand their knowledge reservoir.

### **Social development**

In terms of identity exploration, all blog software allows a user to freely express oneself and customize one's own site without having advanced technological expertise. For example, Blogger has a WYSWYG interface for a user to easily select a theme design and add as many widgets as he wants to individualize his site. In addition, more and more blogging applications are integrating social networking features with online journaling; for instance, Xanga and LiveJournal allow users to access one another's profiles and form a network of same interests. The three blogging tools compared here, however, do not support this function.

### **New literacies**

When comparing multimedia affordance, 21Classes was insufficient as it does not support video and audio publishing. Although the need for multimedia is based on the learning goal, it is believed that accumulative experience with media will strengthen students' comfort level in using technology.

### **Communication and collaboration**

The affordance of multi-users can greatly benefit learners' collaboration. Edublogs allows a teacher to create 15 user accounts for his students at one time. In addition, Edublogs provides different levels of ownership, such as administrator, editor, author,

contributor, or subscriber and welcomes everyone to make contributions, which can decrease the sense of authority. As for inappropriate comments, it is important that the blogging service does provide teachers rights to filter and manage them before they become visible to the public. Blogger, Edublogs, and 21Classes all support this function.

### **Reflection**

Blogging itself does not increase students' reflective thinking level (Xie et al., 2008). It is the teacher's capable management of topic selection, in-time feedback, and continuous encouragement that will facilitate one's reflection. Therefore, in this aspect, all three blogging services cannot be compared. However, it is suggested that the blog hosting service contains a certain degree of novelty and scalability, so students are likely to continue blogging even after the course is over.

### **School-home connection**

All of the blogging tools compared here can serve as a communication channel between the teacher and students, school administration, home, and local community. Parents are well informed by teachers and students posting daily class activities on the blog. However, because of the danger that such online disclosure of personal data may also attract predator's attention and expose youth blogger to danger, educators are looking for a safe blogging environment for younger students. A good blogging tool for educational purposes must provide adequate security and privacy capability. Blogger, Edublogs, and 21Classes all allow blog owners to create password-protected entries and

reserve certain visibility to the Internet users. Edublogs Campus even provides schools or districts an option of creating a campus-wide blogging environment with more control.

In conclusion, in terms of educational affordances, Blogger, Edublogs, and 21Classess show no significant differences. However, Edublogs seems to have a potential in extended features such as multimedia compatibility and statistics of blogging activities, while 21Classes and Blogger might be favored due to their ease of use for a beginner. Hopefully, this comparison will stimulate an instructor to simultaneously consider learner needs and blogging features while making a selection from a variety of blogging services. In the following section, this report will continue with highlighting some blogging strategies for educators.

#### **IMPLEMENTING BLOGS INTO TEACHING**

Although blogging can have a significant and worthwhile educational impact, this impact does not come automatically and does not come without risks. Many researchers have addressed their worries and appealed for more consideration in implementing blogs (Downes, 2004; Ellison & Wu, 2008; Xie et al., 2008). First, students were often overwhelmed by the technical difficulties of a blog. Offering adequate training for students to make best use of the tool is suggested. Second, without teachers' timely intervention, students often lost an interest in maintaining a blog and instead created a meaningless conversation. Downes (2004) explained that for a conversation to be successful, it must be given a purpose and remain unconstrained. It is also beneficial to allow students to write about their interests rather than assigning an irrelevant topic to their life.

Many studies have shown that blogging itself will not transform learning but will because of the instructor's elaborate planning (Downes, 2004; Ellison & Wu, 2008; Xie et al., 2008). To optimize students' blogging experience, a sound instructional technique must be developed and practiced. This report summarizes below some suggestions for educators to plan for a successful blogging experience from the literature as follows (Ellison & Wu, 2008; Harper, 2005; Wang & Hsua, 2008; Xie et al., 2008):

- a) Provide an orientation about the basics of blogs.
- b) Give guidance about how to find topics and how to provide constructive criticism. Always emphasize that respectful disagreement are acceptable and helpful.
- c) Relate in-class discussion to blog topics.
- d) List links to extra resources so that students can easily access professional expertise.
- e) Send a reminder about new posts and teach how to take advantage of RSS.
- f) Beware of the safety issue. Avoid violating Family Educational Rights and Privacy Act (FERPA) by revealing a student's real name; encourage the use of pseudonyms and monitor students' online activity.
- g) Teach about Internet etiquette including knowledge of copyright and of avoiding plagiarism.

To conclude, this chapter introduced some common blogging software and examined their educational affordances regarding knowledge construction, social development, new literacies, reflection, home-school connection, and communication and collaboration. It was found that every blogging service contained similar functions, and it was the teacher's pedagogy about how and what to blog that differs in a blogging

process. This examination hopes to increase educators' knowledge about blogging tools on the market and increase their confidence level of practicing blogging.



## **Chapter Four**

### **Conclusion**

This report reviewed the literature discussing the use of blogs in education in the past five years and summarized that blogs, as one of Web 2.0 tools, have features of hyperlinks, anonymity, RSS, ownership, and archive that fascinate this digital generation. These affordances were believed to support teachers' pedagogy in enhancing learners' knowledge construction, social development, new literacies, collaboration, and home-school connection. However, the argument that an instructor's planning and decision-making is much important than the tool itself in a blogging process was also highlighted in the literature. This echoes the argument of the Technological Pedagogical Content Knowledge (TPCK) theory (Mishra & Koehler, 2006), as both emphasize a teacher's role and knowledge of technology integration.

According to Mishra and Koehler (2006), teachers have Pedagogical Content Knowledge (PCK), Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK) and finally the intersection, Technological Pedagogical Content Knowledge (TPCK). Researchers strive to understand the dynamic relationship among the three kinds of expertise. This current report can represent an examination of teachers' technological pedagogical knowledge when discussing why teachers used blogs for teaching, and a small portion of technological content knowledge when investigating how blogs were used in a specific content area. Future studies are needed to further understand the interrelation among teachers' technological pedagogical content knowledge.

## **LIMITATIONS AND FUTURE RESEARCH**

The limitation of this report is in its article selection methodology and the paucity of research articles about educational blogging in contemporary literature. First of all, the author included only publications from the past five years, and it is quite possible that some authoritative articles could have been overlooked. Second, due to the newness of blogging itself, articles related were mainly online resources and practical-based, while this report only focused on peer-reviewed articles only; as a result, additional themes might not have been considered. Third, this report only compared Edublogs and 21Classes as they claimed to be ideal educational blogging tools. More blogging tools for pedagogical purposes might be invented in the next few years. The validity of the evaluation of common blogging services might decrease as years pass as well because each website is constantly updating. Finally, the author might be biased about blogging's advantages over disadvantages because of a lack of relevant literature.

Based on the review of this topic, implications for future research are discussed as follows:

a) To study the relation between learner characteristics and blogging: Since the literature of blogging dominated in higher education, it is necessary to examine how blogging can be used in K-12 education and how learner characteristics influence blogging experience such as self-efficacy, age, gender, or technical expertise.

b) To study learners' motivation of blogging: A systematic and large scale of research should be conducted to investigate what motivates a student to blog and continue blogging outside of class. According to the author's own experience, a blog that is created mainly for a class assignment is easily discarded once the course is over. It could

be the instructor's misconception that students generally enjoy blogging; therefore, studying the motivation will be meaningful.

c) To identify unique themes of blogging content in different language use of countries: For example, Trammell et al. (2006) studied Polish bloggers and identified that self-expression was the main reason for their blogging. It will be interesting to compare other countries' blogging topics whether business-oriented, learning-oriented, or social networking oriented.

d) To analyze the features of comments in a post: Mishne and Glance (2006) served as an example of studying comments quantitatively, and future research could conduct content analysis on comments in order to understand their general function, for example, a judgment, affective expression, or clarification.

In summary, to find out whether "blogging can be a needle to sew together what is now a lot of learning in isolation among the disciplines" (Downes, 2004, p. 26), we need more evidence about the versatility of blogging. A variety of research topic, methodology and contexts could help us achieve this goal.

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